Amendments to the Claims:

The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A method for optimizing traffic on a distributed content delivery network, comprising:

receiving a request for content from a client at a directory server;

determining if the client is a member of an arena in a list of arenas, wherein an arena is a specified set of nodes on a network and at least one arena has a plurality of nodes; and

if the client is a member of the arena, applying routing rules to the delivery of content to the client, including routing rules specific to the arena.

2. (Original) The method of claim 1, further comprising defining an arena by receiving input from a user and using the input to specify one or more edge routers that surround nodes on the network that are members of the arena.

3. (Original) The method of claim 1, wherein after an arena is defined, a node can be dynamically assigned to and removed from the arena as the node is physically moved.

4. (Original) The method of claim 1, further comprising defining an arena by receiving input from an administrator and using the input to specify a list of addresses for nodes that comprise the arena.

5. (Original) The method of claim 1, wherein a routing rule can prohibit traffic across a specific network link.

6. (Original) The method of claim 1, wherein a routing rule can prohibit traffic across a specific network link when the network link reaches a predetermined utilization.

7. (Original) The method of claim 1, wherein the routing rule specifies a maximum amount of bandwidth that can be used for content delivery purposes on a specific network link.

8. (Currently Amended) The method of claim 1, wherein applying routing rules to[[\]] the delivery of content to the client involves:

attempting to receive content at the client from nodes on a local subnet;

if no nodes are available on the local subnet, attempting to receive the content from nodes in a local arena;

if no nodes are available on the local arena, attempting to receive the content from nodes in non-local arenas as specified by a fallback list;

if no nodes are available on non-local arenas, attempting to receive the content from nodes that are topologically close on a router graph, wherein the router graph specifies how the nodes on the network are interconnected; and

if no nodes are available on the router graph, attempting to receive the content from an origin server.

9. (Original) The method of claim 8, wherein the fallback list for arenas specifies an ordering of arenas.

10. (Currently Amended) A computer-readable magnetic or optical storage medium storing instructions that when executed by a computer cause the computer to perform a method for optimizing traffic on a distributed content delivery network, the method comprising:

receiving a request for content from a client at a directory server;

determining if the client is a member of an arena in a list of arenas, wherein an arena is a specified set of nodes on a network and at least one arena has a plurality of nodes; and

if the client is a member of the arena, applying routing rules to the delivery of content to the client, including routing rules specific to the arena.

11. (Original) The computer-readable storage medium of claim 10, wherein the method further comprises defining an arena by receiving input from a user and using the input to specify one or more edge routers that surround nodes on the network that are members of the arena.

12. (Original) The computer-readable storage medium of claim 10, wherein after an arena is defined, a node can be dynamically assigned to and removed from the arena as the node is physically moved.

13. (Original) The computer-readable storage medium of claim 10, wherein the method further comprises defining an arena by receiving input from an administrator and using the input to specify a list of addresses for nodes that comprise the arena.

14. (Original) The computer-readable storage medium of claim 10, wherein a routing rule can prohibit traffic across a specific network link.

15. (Original) The computer-readable storage medium of claim 14, wherein a routing rule can prohibit traffic across a specific network link when the network link reaches a predetermined utilization.

16. (Original) The computer-readable storage medium of claim 10, wherein the routing rule specifies a maximum amount of bandwidth that can be used for content delivery purposes on a specific network link.

17. (Original) The computer-readable storage medium of claim 10, wherein applying routing rules to the delivery of content to the client involves:

attempting to receive content at the client from nodes on a local subnet;

if no nodes are available on the local subnet, attempting to receive the content from nodes in a local arena;

if no nodes are available on the local arena, attempting to receive the content from nodes in non-local arenas as specified by a fallback list;

if no nodes are available on non-local arenas, attempting to receive the content from nodes that are topologically close on a router graph, wherein the router graph specifies how the nodes on the network are interconnected; and

if no nodes are available on the router graph, attempting to receive the content from an origin server.

18. (Original) The computer-readable storage medium of claim 17, wherein the fallback list for arenas specifies an ordering of arenas.

19. (Currently Amended) An apparatus for optimizing traffic on a distributed content delivery network, comprising:

a receiving mechanism configured to receive a request for content from a client at a directory server;

a determination mechanism configured to determine if the client is a member of an arena in a list of arenas, wherein an arena is a specified set of nodes on a network and at least one arena includes a plurality of nodes; and

a routing mechanism configured to apply routing rules to the delivery of content to the client, including routing rules specific to the arena, if the client is a member of the arena.

20. (Original) The apparatus of claim 19, further comprising a definition mechanism configured to define an arena by receiving input from a user and using the input to specify one or more edge routers that surround nodes on the network that are members of the arena.

21. (Previously Presented) The apparatus of claim 19, wherein the routing rules specific to the arena include one or more of: an order of precedence for fallback

within match sets, an order of precedence for fallback between match sets, identification of sets to avoid, and rules for when to return to an origin server.

22. (Original) The apparatus of claim 19, wherein after an arena is defined, a node can be dynamically assigned to and removed from the arena as the node is physically moved.

23. (Original) The apparatus of claim 19, further comprising a definition mechanism configured to define an arena by receiving input from an administrator and using the input to specify a list of addresses for nodes that comprise the arena.

24. (Original) The apparatus of claim 19, wherein a routing rule can prohibit traffic across a specific network link.

25. (Original) The apparatus of claim 24, wherein a routing rule can prohibit traffic across a specific network link when the network link reaches a predetermined utilization.

26. (Original) The apparatus of claim 19, wherein the routing rule specifies a maximum amount of bandwidth that can be used for content delivery purposes on a specific network link.

27. (Original) The apparatus of claim 19, wherein the routing mechanism is further configured to:

attempt to receive content at the client from nodes on a local subnet;

attempt to receive the content from nodes in a local arena if no nodes are available on the local subnet;

attempt to receive the content from nodes in non-local arenas as specified by a fallback list if no nodes are available on the local arena;

attempt to receive the content from nodes that are topologically close on a router graph if no nodes are available on non-local arenas, wherein the router graph specifies how the nodes on the network are interconnected; and

attempt to receive the content from an origin server if no nodes are available on the router graph.

28. (Original) The apparatus of claim 27, wherein the fallback list for arenas specifies an ordering of arenas.